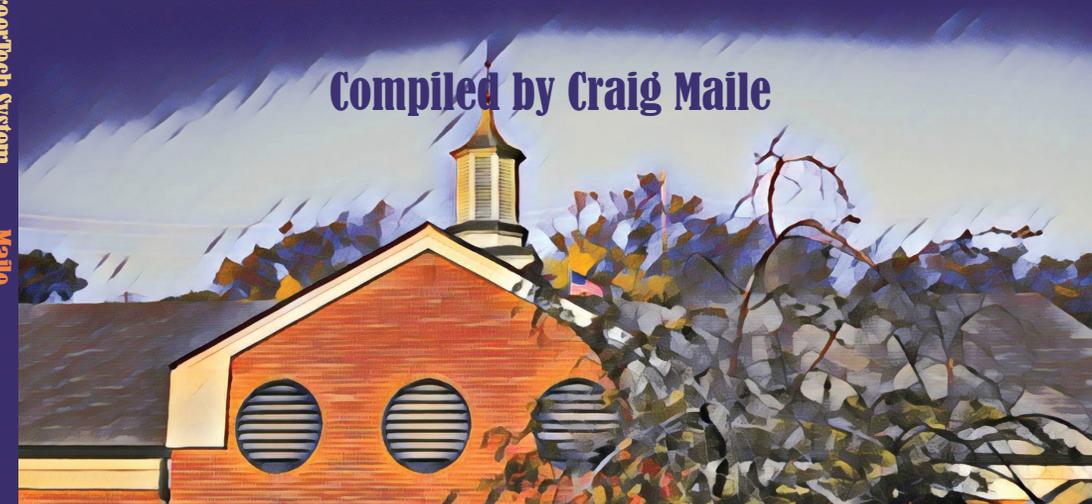


Francis Tuttle Speaks

Quotations and Insights from the Architect
of Oklahoma's Modern CareerTech System



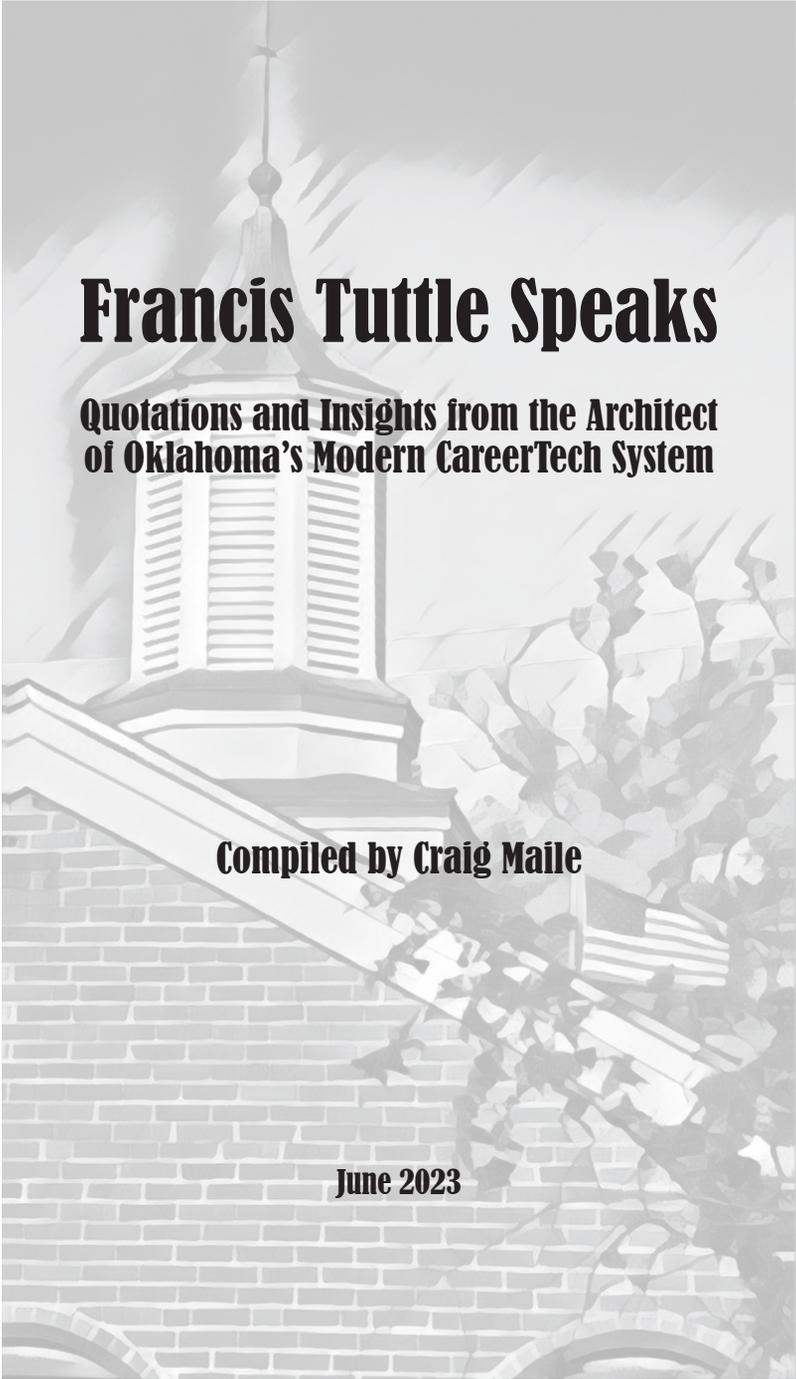
Compiled by Craig Maile



Francis Tuttle Speaks: Quotations and Insights from the Architect of Oklahoma's Modern CareerTech System Maile



OKLAHOMA
CareerTech



Francis Tuttle Speaks

**Quotations and Insights from the Architect
of Oklahoma's Modern CareerTech System**

Compiled by Craig Maile

June 2023



Dr. Francis Tuttle

The late Dr. Francis Tuttle was director of Oklahoma's State Department of Vocational and Technical Education for almost two decades. Dr. Tuttle charted

the pathway for what became career and technical education nationwide.

Prior to coming to the state agency, Tuttle was a vocational agriculture instructor and served as superintendent of schools at Gotebo, Muskogee and Holdenville. Following his retirement from the state agency, the governor appointed him director of the Oklahoma Department of Economic Development. He subsequently was appointed secretary of commerce when that agency merged with the state Department of Commerce.

Tuttle's service to education included consultations for Sweden, Thailand, the Soviet Union and China. He was a past president of the American Vocational Association. He was one of the first three inductees into the Oklahoma Educators Hall of Fame and recipient of the Henry G Bennett Distinguished Service Award in 1982.

Dr. Tuttle was inducted into Oklahoma's CareerTech Hall of Fame in 1990.

Contents

Statement of the Problem	1
Role of Occupational Education	2
Occupational Education as a Continuum	3
Role of Vocational Education	4
Education to Reach All People	5
Need for Comprehensiveness	6
Challenge of Change	7
Change and Improvement	8
More Valid Measures of Quality	9
New and Creative Programs	10
Quality of the Educational Enterprise	11
Excellence	12
Democracy of Talent	13
Excellence in Humble Tasks	14
With a Goal in Hand	15
Willingness to Change	16
Attitude of a Professional	17
Progress and Change	18
Career Education and Vocational Education	19
Career Education as a Concept	20
Role of Data	21
Aim of Area Schools	22

Role of the Industrial Coordinator	23
Industry and the Individual	24
Vocational Education for Everyone	25
Best Pattern of Education	26
Importance of Ideals	27
A Little Point of Advice	28
Democracy of the Area School Concept	29
Performance Required of Teachers	30
Equipment and Skills	31
The Pace of Change	32
A Little Bit of Salesmanship	33
“Let’s Don’t Make People Wonder”	34
Teachers and Accountability	35
Management by Objectives	36
A Bit of Philosophy about Teacher Education	37
Expectations in a Changing World	38
Expectations in Educating Adults	39
Expectations in Teacher Certification	40
T&I Teachers in the Spotlight	41
Four Fundamental Ideas	42
Vocational Student Organizations	43
Industry Advisory Committees	44
The Work of Tomorrow	45
Confronting the Challenge of Change	46
What It Takes to Inspire Workers	47
Leadership for the Times	48
A New Day Coming	49

Vocational Education and Economic Development	50
Technology and Productivity	51
Key Ingredients of Flexibility	52
Overcoming the Gap Between Needs and Capabilities	53
Technology Is Coming	54
Educating to Adapt	55
The Concept of Higher Education	56
State Training in Support of Economic Development	57
Basic Questions about a State's Vocational Education System	58
The Real Thing that Made It Work	60
On Working with Legislators	61
On Funding Requests	62
Vocational Education and the Challenge of Change	63
How Vocational Education Can Thrive	64
The Participatory Leadership Style	65
Value of the Management Team	66
Importance of Qualified and Dedicated Staff	67
The Significance of Being Separate	68
The Road Ahead	69
Motto	70

Statement of the Problem

“The major purpose of education is to prepare young people to live satisfying and productive lives. However, many young people are leaving school without entry-level job skills, the behavioral characteristics, and the basic general knowledge necessary to live and participate successfully in society.

“In typical schools throughout the country, young people have charged that curriculums are dull and irrelevant and that their education is not equipping them for a rewarding and productive adulthood. Some parents and teachers also question the value of educational experiences in preparing students to live useful and satisfying lives. Employers are finding that young people are poorly trained in the occupational skills and are lacking the behavioral characteristics necessary to perform competently in the world of work.

“These problems underscore the need for reorganizing the total curriculum and finding means for developing and testing promising, innovative instructional materials to prepare the student to enter the job market with a salable skill and/or to continue his/her education.”

—*Dr. Francis Tuttle, The Oklahoma State Department of Vocational and Technical Education Curriculum Laboratory Grant, Research Project in Vocational Education, Final Report, June 30, 1975*

Role of Occupational Education

“To be successful and acceptable, occupational education must be part of the total educational program. It must exist within the framework of the whole educational pattern and be consistent with the objectives of the program level at which it is located.”

—*Dr. Francis Tuttle, to the Missouri Vocational Association, April 11, 1969*



Occupational Education as a Continuum

“Occupational education must be designed as a continuum beginning at the secondary level or before and proceeding through the entire occupational life span of an individual as a program of continuing learning.”

—*Dr. Francis Tuttle, to the Missouri Vocational Association, April 11, 1969*

Role of Vocational Education

“To be successful and acceptable, vo-tech education must be part of the total educational program. It must exist within the framework of the whole educational pattern and be consistent with the objectives of the program level at which it is located.

“Its specific role must be to provide immediate preparation for gainful employment and, at the same time, provide for adaptability and changes as society’s occupational requirements shift. In addition, it must be clearly supportive of the next higher level of occupational preparation to which an individual may aspire. Occupational education must be designed as a continuum beginning at the secondary level or before and proceeding through the entire occupational life span of an individual as a program of continuing learning.”

—*Dr. Francis Tuttle, to the Business/Industry-Education Symposium, Oklahoma City, October 17, 1972*



Education to Reach All People

“If we are to meet today’s demands and move to a changing, adaptable program of occupational education, we must take full cognizance of all agencies and institutions, private and public, which are at present offering some part of an occupational education program. No longer can every level and every school go its separate way. In order to have a program which reaches all people, regardless of ability or circumstances, who need occupational preparation to become employable or to move higher on a scale of employability, we must develop a coherent system which considers program offerings at the secondary level, at the postsecondary level, in the private schools, as well as in other agencies of government offering occupational preparation of one kind or another. We must develop a coordination among all these units in order to eliminate overlapping and wasteful duplication.”

—*Dr. Francis Tuttle, to the Missouri Vocational Association, April 11, 1969*

Need for Comprehensiveness

"If we are to meet the needs of industry and people, and particularly of adults, the disadvantaged, and handicapped, every effort must be made to provide comprehensiveness in program offerings. To that end, relevant, long-range planning is essential and must be carried out on a region-by-region basis involving all of the people who have a concern."

—*Dr. Francis Tuttle, to the Missouri Vocational Association, April 11, 1969*



Challenge of Change

"I need not bore you with familiar statistics concerning the changing pattern of employment, skill shortages, or high unemployment rates, particularly among teenagers and the disadvantaged. What is important is that there have been startling qualitative changes during the past ten years concerning the makeup of the workforce.

"Automation and other technological developments have made extraordinary changes in the nature of work performed today. Old jobs are disappearing. New ones are emerging. Industries relocate and jobs move away with them. New products and processes demand new or vastly improved skills which enough people in the labor market do not possess."

...

"With these as the climate and conditions in the industrial world, we can no longer continue to provide training for only a narrow and confining group of specific jobs. The level at which programs are located will need to be clearly identified. Present programs will need to be examined carefully. Content, length, and goals will need to be validated on the basis of present demand."

—*Dr. Francis Tuttle, to the Missouri Vocational Association, April 11, 1969*

Change and Improvement

"If change and improvement are to occur, longstanding traditions must be de-emphasized or eliminated entirely."

—*Dr. Francis Tuttle, to the Business/Industry-Education Symposium, Oklahoma City, October 17, 1972*



More Valid Measures of Quality

“For too long, we have placed undue emphasis on preparing persons for highly skilled occupations or providing adults with upgrading programs to increase their skill levels. While this is, and has always been, a laudable purpose, it has created an image of exclusiveness and the false view that quality occupational education is measured by the high level of skill which a limited number of students achieve. There are more valid measures of quality than this. I believe that quality instruction can be provided in any program for any level of skill with any level of ability of students.”

—*Dr. Francis Tuttle, to the Missouri Vocational Association, April 11, 1969*

New and Creative Programs

“New and creative programs, ones which include work-study arrangements, work experience activities, stipend payments, and the development of reasonable work attitudes, must be provided within the structure of an all-inclusive program.”

—*Dr. Francis Tuttle, to the Missouri Vocational Association, April 11, 1969*



Quality of the Educational Enterprise

“What we do about those on the periphery of our usual concerns, the disadvantaged, is more likely to reveal the general quality of our entire educational enterprise and more likely to serve as a test of its ultimate viability than what we do for the great middle range...”

—*Dr. Francis Tuttle, to the Missouri Vocational Association, April 11, 1969*

Excellence

“I do not think, as some have argued, that, by definition, excellence must be characterized by relative scarcity. Rather, I think excellence can be ubiquitous, present everywhere, if each person responds to his duty, to himself, and to his society, in short, is educated to the limits of his capacity.”

—*Dr. Francis Tuttle, to the Missouri Vocational Association, April 11, 1969*



Democracy of Talent

“There is a democracy of talent as well as of excellence. In a democratic society, a whole range of talent is necessary to make it work. Our society depends upon a highly diversified range of decision-making.”

—*Dr. Francis Tuttle, to the Missouri Vocational Association, April 11, 1969*

Excellence in Humble Tasks

“Excellence means doing our humble tasks as well as we apply ourselves towards those with more noble purpose. It means, too, that we honor all abilities and the capacity of every individual human being to be turned to some good use.”

—*Dr. Francis Tuttle, to the Missouri Vocational Association, April 11, 1969*



With a Goal in Hand

“When you clutch your goal in your hand, it is no good. As soon as you have a good thing going, you must begin planning to make it obsolete.”

—*Dr. Francis Tuttle, to the Missouri Vocational Association, April 11, 1969*

Willingness to Change

“We must take care that promising new heresies do not become dull new orthodoxies.”

—*Dr. Francis Tuttle, to the Missouri Vocational Association, April 11, 1969*



Attitude of a Professional

“What is needed, in addition to your intensity of interest and devotion to a program, is an attitude of a professional, a person who is unwilling to live within existing structures just because they are comfortable, neatly packaged, and have been successful. An appetite for a new look is now a professional requirement.”

—*Dr. Francis Tuttle, to the Missouri Vocational Association, April 11, 1969*

Progress and Change

"All of us are for progress, of course. It is only change we do not like."

—Dr. Francis Tuttle, to the Business/Industry-Education Symposium, Oklahoma City, October 17, 1972



Career Education and Vocational Education

“I would caution you to remember Career Education is not a new name for vocational education. It’s much bigger than vocational education and may encompass a person’s whole lifetime as he enters and exits educational and training programs until he reaches the career level to which he aspires.”

—Dr. Francis Tuttle, to the Oklahoma Career Education Conference, Central State University, September 20, 1972

Career Education as a Concept

“Career Education is not a program but a concept. A concept that excites those of us who are dedicated to seeing students leave the public schools with a skill which is needed somewhere in the World of Work. It is not a color-coded, indexed and boxed ‘do-it-yourself kit,’ but a concept which will require the support of leaders from the statehouse to the local school house—if it is going to work.”

—Dr. Francis Tuttle, to the Oklahoma Career Education Conference, Central State University, September 20, 1972



Role of Data

“When data is not gathered, training programs become littered with useless information, misplaced emphasis, leave out important information and produce a man who knows too much about the wrong things or too little about the right things.”

—*Dr. Francis Tuttle, to the American Vocational Association, December 7, 1975*

Aim of Area Schools

"...[I]n the development of the area school centers, we tried to use the experiences of other states that have gone into this movement before we did. We visited them, talked with them, looked at their schools, tried to capitalize on what mistakes they made, tried to incorporate into our plan the good points of their plan, and we also had to take a look at our own state and see what the situation was. We felt that if we developed a system of technical schools that was devoted to only post high school education, to the adults and the out-of-school people that we would have schools and facilities that would not be filled because almost 70% of the high school graduates are entering higher education institutions. When you take out those that you know will be difficult to get into any kind of post high school training, then it doesn't leave a very large group. We thought that we should start our schools and interest students at a younger age. We aimed at those in the secondary schools, hoping to capture their interest and to show that there was possibility of training in a shorter length of time..."

—*Dr. Francis Tuttle, to the Governor's Conference on Education and Training for Full Employment, October 28, 1968*

Role of the Industrial Coordinator

“One of the things that we are developing in these area schools and which I am pledged to further push is that each school will name an industrial coordinator. This will be a person whose sole duty is to live within industry, so to speak—a person [who] will go from industry to industry talking with the shop foreman, management, personnel people and trying to find out what their needs are in the area of training and to put together the classes and the training programs which will serve these needs. We think that this should rightfully be a part of the function of each one of these area school programs. We expect these schools to be subject to the needs of the emerging and established industries that develop in all districts.”

—*Dr. Francis Tuttle, to the Governor’s Conference on
Education and Training for Full Employment,
October 28, 1968*

Industry and the Individual

“We feel that by serving industry we can best help the individual.”

—*Dr. Francis Tuttle, to the Governor’s Conference on
Education and Training for Full Employment,
October 28, 1968*



Vocational Education for Everyone

“We must have good basic education in order for anyone to learn a skill. Vocational and technical education really should be a part of every person’s curriculum. So that if they find out nothing else, they find out what goes on in the world of work. No matter what kind of job they become involved in, whether it be a professional or skilled job, they must be conscious of those things that go on in the world of work, because all jobs contribute one way or the other to it.”

—*Dr. Francis Tuttle, to the Governor’s Conference on
Education and Training for Full Employment,
October 28, 1968*

Best Pattern of Education

"I think if I could pitch out any thought to this group on developing the best pattern of education possible it would be to work with all of the educational agencies to develop a vertical pattern of education. And in that vertical pattern of education would come the idea that a person is never shut off, never stemmed from advancing to the next rung."

*—Dr. Francis Tuttle, to the Governor's Conference on
Education and Training for Full Employment,
October 28, 1968*



Importance of Ideals

“Striving for that which you believe to be the height of attainment is an important factor in the business of making life worthwhile. Nearly every person has an ideal of some kind. It is the magnet that holds us to life.”

—*Dr. Francis Tuttle, commencement address to Ripley High School, Ripley, Oklahoma, May 15, 1973*

A Little Point of Advice

“One of the little points of advice that I would like to present for you to at least think about, and I know your thoughts about preparing for the proper career and preparing to make the kind of living that will provide you a standard equal to your aspirations is more important, but may I also remind you that making a life instead of simply making a living is certainly an important decision.”

—*Dr. Francis Tuttle, commencement address to Ripley High School, Ripley, Oklahoma, May 15, 1973*



Democracy of the Area School Concept

“The area school concept is completely democratic. Its purpose is to offer quality, up-to-date vocational-technical education through local initiative, financing, and control.”

—*Dr. Francis Tuttle, Moore-Norman Area Vocational-Technical School Dedication, October 24, 1976*

Performance Required of Teachers

“40 hours per week won’t get it. Get with it. Think of jobs to be done rather than time.”

—*Dr. Francis Tuttle, to the National Association of Supervisors of Agricultural Education, December 7, 1975*



Equipment and Skills

“When the equipment used in occupational training becomes obsolete, so do the skills of the faculty.”

—*Dr. Francis Tuttle, “Relating Workforce Needs,”
Birmingham, Alabama, April 26, 1983*

The Pace of Change

“The rush of every county, state, community, company, economic development agency, vocational education training program, and university to join this high technology craze is well known. The dangers for miscalculation and misperception are great. While none of these changes occurs overnight, and while no one’s crystal ball is terribly clear at this time, one thing can be said for sure. The workplace is changing, and the pace of change is accelerating. So, the question really is, ‘How do we best prepare ourselves to cope effectively with this change, and where possible, how can we anticipate it, plan for it, manage it, and in some cases, influence it to our advantage?’”

—*Dr. Francis Tuttle, “Relating Workforce Needs,”
Birmingham, Alabama, April 26, 1983*



A Little Bit of Salesmanship

“Why do we always seem to run ourselves into the ground? I am suggesting to you that if you really start believing in your profession and you really start talking about it and you really start being proud of it and letting other people know you are proud of it, then they will tend to believe that what you are doing is important and that what you are doing has status.”

—*Dr. Francis Tuttle, presentation before the Combined Associations of Vocational Education Teachers, Clemson University, August 10, 1972*

“Let’s Don’t Make People Wonder”

“I was in a gas station a while back in my hometown and a young chap came up to me and said, ‘How do you fell?’ I said, ‘I feel wonderful.’ He said, ‘You look sick, your color is bad, you look yellow.’ ‘I have never felt better in my life,’ I said. You know, you don’t pay any attention to things like that. I drove a whole block before I stopped to look in the rear-view mirror. That night, I checked again in one bathroom under florescent lights and another one with regular lights, and, still not too sure how I felt, the next morning I am peering at my eyeballs wondering if my liver had gone bad, wondering if I had yellow jaundice. Well, I went back to that gas station and discovered something—everyone in there looked yellow. They had just painted the place a sick yellow color but a casual statement by a non-authority and, all of a sudden, I wondered. Let’s don’t make people wonder about our profession. Let’s be sure that we are not painting it a sick yellow. Each day, you and I help to undermine our own profession by our own unwillingness to stand up for it.”

—*Dr. Francis Tuttle, presentation before the Combined Associations of Vocational Education Teachers, Clemson University, August 10, 1972*

Teachers and Accountability

"I am of the opinion that every teacher should learn the meaning of accountability. The United States Congress, the state legislatures, and citizens' groups are all showing a great deal of interest in accountability for education. It seems to me that we all better find out what they mean by accountability and develop a personal program of accountability for the programs we direct. If you are ahead of the hounds, so to speak, when the real accountability for education comes to your state or to your district, you will benefit by it. Also, it seems to me that when you are keenly aware that you must be accountable, then this is going to force you to set some objectives in your own program, some objectives that can be measured."

—Dr. Francis Tuttle, presentation before the Combined Associations of Vocational Education Teachers, Clemson University, August 10, 1972

Management by Objectives

“A great deal is being talked about management by objectives, and here again, you can be hurt by what you don’t know. If you don’t know what they are talking about in terms of management by objectives or if you don’t understand what the program is, then I would suggest that you do all you can to find out what they are talking about. Business, industry, and many facets of government have advanced far ahead of us in education through their management by objectives system. Too long in vocational-technical education, we have plodded along with a management-by-crisis or a management-by-tradition system. Management by objectives can be put into effect for vocational-technical education from the state board down to what happens in the shop, and if it is done properly, you will be ready for accountability and evaluation.”

—Dr. Francis Tuttle, presentation before the Combined Associations of Vocational Education Teachers, Clemson University, August 10, 1972



A Bit of Philosophy about Teacher Education

“Vocational education teacher education needs are frequently unique in the education community. Classroom teachers in the academic areas go through a wide range of activities in making a choice to go into the classroom. They have had generous exposure to the field while in high school, have elected to major in one or more academic areas while in college, have decided normally by the junior year of college to become a teacher, spent two or more years preparing to teach, and finally are credentialed to go into the classroom to present this body of knowledge for which they have so carefully prepared. Some vocational programs fit very comfortably into this type of preparation...

“Many vocational programs, particularly those in the skilled trades and in the health services field, cannot afford the luxury of such a leisurely approach. As needs for vocational programs are identified, the needs for qualified teachers are immediate but frequently difficult to meet. For example, if we are opening a carpentry program, it is sometimes difficult enough to find a capable carpenter who is willing to teach; but the odds against finding a degreed carpenter are astronomical. Since the technical competence in carpentry is essential, we must expedite the conversion of a carpenter into a teacher of carpentry.”

—*Dr. Francis Tuttle, "What State Departments Expect of Teacher Educators," no date.*

Expectations in a Changing World

“We are living in a changing world. If we stand still in a changing world, then we are falling behind. Everyone in vocational education needs to be on the alert to changes that are taking place with the idea of at least adjusting to those changes if not anticipating them.”

—*Dr. Francis Tuttle, “What State Departments Expect of Teacher Educators,” no date.*



Expectations in Educating Adults

“Since most of these individuals [adults] represent our failures in our ability to recruit, motivate, and involve them while they were in school, if they are willing to give us a second chance, we should be prepared to offer them a meaningful program of instruction.”

—*Dr. Francis Tuttle, “What State Departments Expect of Teacher Educators,” no date.*

Expectations in Teacher Certification

"In delivery of education for teacher certification, there are perhaps three questions that should be answered—What? When? Where? Let me clarify these three questions.

"WHAT? What kind of education is needed? Can the needs be met through the current program with adjustments or will the teacher-training program need to be revised? Do we have the kinds of qualifications necessary in our teacher-training staffs to project the kinds of knowledges, attitudes, and skills needed by today's teachers?

"WHEN? Does our current program in teacher training offer the program at times when those teachers needing the instruction are available to take it? Is the program packaged in such a way that the content needed can be projected in a minimum of time with maximum content?

"WHERE? Is the program available geographically so as to require minimum driving for maximum effectiveness? Do we utilize extension courses, talkback TV, and other means and media to deliver the service as widely as possible?"

—*Dr. Francis Tuttle, "What State Departments Expect of Teacher Educators," no date.*

T&I Teachers in the Spotlight

“The necessities and satisfactions of work are the basic ingredients of the quality of life that most people seek. What is this thing called ‘quality of life’ that economists, planners, and academicians talk about?”

“Perhaps this is an oversimplification—but the real quality of life begins by being able to earn enough to provide for the necessities of life and some of its superfluities. To have the opportunity to earn a living and pursue and enjoy some of life’s recreational and avocational aspects. You are providing these opportunities to thousands of the country’s young people and adults.

...

“Quality of life is written about and defined generally by people who don’t have it or understand it. T&I and vocational education can and should lay as great a claim on its development and attainment as all the academically trained groups combined.”

—*Dr. Francis Tuttle, AVA Convention, December 4, 1976*

Four Fundamental Ideas

“The plan of cooperation between the Federal Government and the states for the promotion of vocational education is based upon four fundamental ideas: (1) that vocational education being essential to the national welfare, it is a function of the national Government to stimulate the states to develop and maintain this service; (2) that Federal funds are required to adjust inequities among the states and to ease the burden of providing the service; (3) that, since the Federal Government is vitally interested in the success of vocational education, it should, so to speak, secure a degree of participation in this work; and (4) that only by creating such a relationship between the Federal Government and the several states can better and more uniform standards of educational efficiency be developed.”

—*Dr. Francis Tuttle, "Vocational Education," contribution to the 32nd biennial report of the State Board of Education, 1968*

Vocational Student Organizations

"Americans grow up being competitive and where could you find more competition than in our student organizations? Americans grow up learning to love, and where can you find more love than that which grows between members of these organizations? Americans grow up learning to excel, and where can you find more excellence than in members of these student organizations?"

"Merely taking a course in vocational and technical education without reaping all the benefits of the student organization might be equivalent to having a beautiful painting hidden away in a dark closet so that the real worth and beauty would never be recognized. When you give yourself, give totally, that's the only way you can receive total benefit. That means giving your mind and effort to the classroom and laboratory, your heart to your fellow students, and your all to the student organizations. Anything less will gain you only partial recompense."

—*Dr. Francis Tuttle, vocational student organizations banquet, Anadarko High School, April 23, 1976*

Industry Advisory Committees

"...I would suggest that every program in the state organize an industry advisory committee. If you are not doing it, you are missing a bet. A local advisory committee is one of the best tools that I know of to get you some help. A local advisory committee can do more to correct local inequities than anything I know of. When your community becomes aware of your problems and when they participate in setting the goals for your program and understand what your goals are and what you want to accomplish, they will be glad to help you accomplish them. It is also added insurance that you are going to keep your program updated in terms of the latest approaches that may be developing in industry. It also has built-in advantages as the local advisory committee becomes a public relations committee for your program."

—Dr. Francis Tuttle, presentation before the Combined Associations of Vocational Education Teachers, Clemson University, August 10, 1972

The Work of Tomorrow

"...[B]ecause of the peculiar demographics created by the low birth rates of the depression and the high birth rates following World War II, those who will do the work in America for at least the next two to three decades are already adults and most are already at work. Yet, a large and growing portion of these workers is inadequately prepared for today's work, let alone tomorrow's. The critical need then is two-fold: to identify the forces that will shape tomorrow's work and to determine what will be required to prepare the nation's workers to do that work."

—*Dr. Francis Tuttle, "Relating Workforce Needs,"
Birmingham, Alabama, April 26, 1983*

Confronting the Challenge of Change

“Micro-electronics, machines that can walk and see, and automated factories and offices are rapidly reducing the time between one advance and the next that supplants it. The speed with which electronic calculators supplanted mechanical devices, silicon chips replaced transistors, and second-generation home computers have replaced first-generation machines is representative of many similar but less well-known changes now underway.

“Moreover, the precise nature and timing of many of the changes are difficult to predict because of rapid shifts in the underlying technologies in materials, engineering, management, and manufacturing processes.

“In such conditions of uncertainty, the principal route for firms, workers, states, regions, and the nation to confront the challenge of change is to improve their ability to adapt. Those who can adjust quickly will also adjust well. Those who adjust slowly will surely fall behind.”

—*Dr. Francis Tuttle, “Relating Workforce Needs,”
Birmingham, Alabama, April 26, 1983*

What It Takes to Inspire Workers

“America has been great in developing new management programs. They have also been great in developing technology, but quite often our management doesn’t use the kind of management system that it takes to inspire workers to give them the most output.”

—*Dr. Francis Tuttle, “Relating Workforce Needs,”
Birmingham, Alabama, April 26, 1983*

Leadership for the Times

"...Well, Jim Perky was like a lot of other administrators back in those times. There were a lot of strong administrators. They ran a tight ship. If that required being very autocratic, they didn't hesitate to use that...I think in the time he [J.B. Perky] was serving as state director, if he hadn't been that kind of a fellow, he would have gotten run over, because there were a lot of superintendents of schools out there who, really all they wanted was the money that could come to their school from federal funds that were available...Their hearts weren't really into the program that much and so it took a tough, hard-nosed administrator to keep things going. I have to say that probably for his day and time, it was good that Oklahoma had a big, tough administrator, and he was that."

—*Dr. Francis Tuttle, Oral History of the Oklahoma Department of Vocational and Technical Education, 1996*



A New Day Coming

“He [Dr. Oliver Hodge, state superintendent] told me, ‘I’ve talked to Jim Perky, and we’ve decided that you’re the man we ought to have. He agrees that this person has to be able to get along with public school administrators. He also wants him to have vocational education running through his veins.’...After I moved, got up here, and about time to get my first paycheck, he [J.B. Perky] called me one day and said, ‘Oh, by the way, Tuttle, your salary’s going to be \$15,000, not \$16,500.’ Well, when you quit a job and move and you couldn’t go back, and not any other jobs at that time of year that were available that were as good, I just swallowed my pride because I knew there was coming a new day.”

—*Dr. Francis Tuttle, Oral History of the Oklahoma Department of Vocational and Technical Education, 1996*

Vocational Education and Economic Development

“He [Governor Dewey Bartlett] was very much interested in economic development. He had done enough studies of what was going on in the United States and he heard about South Carolina, and he went there and visited. He came back liking what he saw. South Carolina was not the first state to build area vo-tech schools, but it was the first state to use vocational education to primarily help economic development. That was basically their purpose.”

—*Dr. Francis Tuttle, Oral History of the Oklahoma Department of Vocational and Technical Education, 1996*



Technology and Productivity

"I for one am not ready yet to concede that all of the so-called smokestack industries are going down the tube. I believe that what we have to do is to apply technology to those industries, and even though it does cut out some jobs, it will make them more productive. And that productivity will be invested into expansions and additional jobs."

—*Dr. Francis Tuttle, "Relating Workforce Needs,"
Birmingham, Alabama, April 26, 1983*

Key Ingredients of Flexibility

“Those states that have developed the best vocational and technical training systems that attune to the needs of business and industry have shown that they are attracting much new business and industry to their states. If these vocational programs are to succeed in helping workers to develop the skills they will need in the years ahead, however, three additional steps must be taken. Labor market information must be improved. Instructional equipment must be modernized. Faculty skills must be updated. These are key ingredients of a flexible training system capable of adapting to shifting economic circumstances.”

—*Dr. Francis Tuttle, “Relating Workforce Needs,”
Birmingham, Alabama, April 26, 1983*



Overcoming the Gap Between Needs and Capabilities

“Rapid technology and economic changes have and will create widespread demand for new and improved worker skills and at the same time strain the capacity of the nation’s training systems to provide it. If this critical gap between the region’s training needs and capabilities is to be overcome, a more flexible and comprehensive approach including the provision of state-of-the-art equipment and faculty along with current and reliable labor market information will be required.”

—*Dr. Francis Tuttle, "Relating Workforce Needs,"
Birmingham, Alabama, April 26, 1983*

Technology is Coming

"I am convinced that technology is coming to all of the skilled occupations. We do not change those occupations, but we have to change the content of what the people have to learn in order to work in these skilled jobs, technical jobs and technologies."

—*Dr. Francis Tuttle, "Relating Workforce Needs,"
Birmingham, Alabama, April 26, 1983*



Educating to Adapt

“We are finding that we can’t continue to prepare narrowly trained technicians and technologists, that we have to provide them with an education so that they can adapt.”

—*Dr. Francis Tuttle, “Relating Workforce Needs,”
Birmingham, Alabama, April 26, 1983*

The Concept of Higher Education

“Higher education is not my field, but I have the same feeling about higher education that I do the technical education programs. It is high time that we take a look at the educational program, and perhaps completely redo our concept of providing higher education.”

—*Dr. Francis Tuttle, “Relating Workforce Needs,”
Birmingham, Alabama, April 26, 1983*



State Training in Support of Economic Development

“Vocational education that serves to support economic development through assisting the gamut of existing, expanding and new industries is totally compatible with the philosophy that education must serve societal needs. A vocational education system that meets industry’s needs must today meet the needs of the individual worker. Competent, productive workers mean happy, contented workers. Happy, contented workers make for productive plans and quality products. A good total system of vocational education doesn’t service Big Industry. It serves the total society.”

—*Dr. Francis Tuttle, Conference on Jobs and Skills for the Future, Appalachian Regional Commission, Jackson, Mississippi, April 12, 1983*

Basic Questions about a State's Vocational Education System

"When a state's vocational training system is evaluated, some basic questions need to be asked:

1. Is there a sole state agency to coordinate all vocational education programs in the state? What mechanisms are in place to assure coordination between this agency and other state agencies (e.g., economic development commissions)?
2. Does the state vocational education agency control 'quick start funds' and conduct the training for new industries, and if not, why not?
3. Does the state vocational education agency own a pool of training equipment, not assigned to an existing institution, which can be quickly transported to the site or near the site of a new or expanding industry for training purposes?
4. Do the existing vocational schools have facilities in which to install training for industry? If not, what provisions are available for setting up programs elsewhere?
5. If an existing industry wants training for a new thrust, does the system for vocational education have funds to provide this training?
6. Does the local vocational school or community college have 'industrial coordinators' who continually visit with area industries about their need for upgrade training, and does the system have funds to conduct the training?

7. Do the vocational schools and community colleges have some method of avoiding competing for the same students with the same kinds of training programs?
8. Has the state legislature addressed the issue of assigning responsibilities for different kinds and levels of training to the various types of institutions?
9. Has the legislature or the governing board or boards for education mandated programs for the benefit of students?

"If the answer to all these questions is yes, then a state can feel comfortable with the organization and structure of its vocational education system."

*—Dr. Francis Tuttle, Conference on Jobs and Skills for
the Future, Appalachian Regional Commission, Jackson,
Mississippi, April 12, 1983*

The Real Thing that Made It Work

"...[O]ur state board made the decision that they wouldn't approve a school any place unless they built a new building, because our experience was that the superintendents wanted a school, but they wanted it in an old, abandoned warehouse, or the old school where they had built a new one, and that sort of thing.

"I think the state board made a good decision, but despite all that, it soon became evident that those schools weren't going to work very well because the public schools' priorities were not on vocational education. They didn't have the money, and their priority wasn't for that, so they didn't even want to spend a share of the money. We soon decided that we had to have some other way to fund vocational education or it wasn't going to work. That resulted in the constitutional amendment giving us the right to form districts...To me, that was the real thing that made it work—when we were able to form a district, we were able to vote minutes to help fund the program... Without that, Oklahoma would still be in the dark ages as far as vocational education is concerned, in my opinion."

—*Dr. Francis Tuttle, Oral History of the Oklahoma Department of Vocational and Technical Education, 1996*

On Working with Legislators

"I think it's important to continue to build confidence with the legislators. They didn't all of them like me particularly, but I think they all thought I was honest with them. Whatever I told them, they could depend on. I tried to be sure that whatever I told them, they could depend on."

—*Dr. Francis Tuttle, Oral History of the Oklahoma Department of Vocational and Technical Education, 1996*

On Funding Requests

"My philosophy was, 'Ask for what you need, and plan to get every penny of it.' Some guys [who] deal with the legislature, if they need \$10 million, they'll ask for \$20 million...I don't know what's the best, but I always thought the thing to do was to ask for what you need and really try to get it. It worked pretty good for us."

—*Dr. Francis Tuttle, Oral History of the Oklahoma Department of Vocational and Technical Education, 1996*



Vocational Education and the Challenge of Change

“One of the problems with higher education today is that they can’t change as quickly as they need to change to get the information up-to-date and with the technology that has developed. They just can’t do it. Vocational education has a better opportunity to do that than they do. We’re not bound by having to offer a particular subject matter. We can change when the need for change appears. The only problem we have is getting and keeping the people who are willing to change. What we may do is stub our own toes by not keeping the flexibility that’s been built into this system for change.”

—*Dr. Francis Tuttle, Oral History of the Oklahoma Department of Vocational and Technical Education, 1996*

How Vocational Education Can Thrive

“Vocational education is very complex. Although some issues are of equal importance to both academic and vocational education, vocational education has unique areas of interest. Vocational education uses a different type of instruction than that normally used in academic classrooms, so different instructional issues surface.

“Also, unlike academic programs that remain relatively constant in terms of content, vocational education changes as technology changes.

“Also, vocational education must address the needs of unique populations which are usually not served in K-12 educational systems. Due to these differences, even vocational education administration is quite different from traditional education.

“Vocational education in Oklahoma could not thrive within the confines of the traditional educational structure as the number of programs grew and the diversity of programs and services evolved. One of the key ingredients for effective administration of vocational education is flexibility. Having a separate vocational board that devoted itself totally to vocational issues increased our ability to respond quickly to the needs of the economy, business, industry, and students.”

—*Dr. Francis Tuttle, quoted in A Case Study of Three States Identified as Having a High-Quality State Vocational Education System, Roy V. Peters, Jr., December 1987*

The Participatory Leadership Style

“Based on input from the staff that worked with programs in the field and from interaction with business, industry, the legislature, and the board, we established departmental goals. Each division was responsible for carrying out those programs and providing those services that would assure our goals were accomplished.

“I felt that my responsibility was leadership for all vocational educators in Oklahoma, not just for the state agency. I spent a great deal of my time interacting with school administrators, teachers, legislators, business, and industry. My deputy director managed supervision of state agency staff on a daily basis.”

—*Dr. Francis Tuttle, quoted in A Case Study of Three States Identified as Having a High-Quality State Vocational Education System, Roy V. Peters, Jr., December 1987*

Value of the Management Team

"I utilized my management team to develop direction and to recommend policy, but I also tried to delegate decision making to the division heads as often as possible. Since our staff kept in touch with the field, we were able to recognize needs as they emerged and able to implement programs to meet those needs. A state director cannot keep in touch with all aspects of vocational education, so he must depend on his staff to recognize programmatic and administrative needs."

—Dr. Francis Tuttle, quoted in A Case Study of Three States Identified as Having a High-Quality State Vocational Education System, Roy V. Peters, Jr., December 1987



Importance of Qualified and Dedicated Staff

“Having a separate staff, that devotes its entire attention to vocational education, assures adequate time and expertise for new projects and to resolving deficiencies in existing programs. The vocational education specialists have the opportunity to develop the expertise and experience that is needed to deal with the complex issues of industry training; productivity improvement; government contracting; industry-specific, short-term training programs; and employment of disadvantaged adults, handicapped youth and adults, high school dropouts, dislocated workers, and inmates. Without the support of a separate board and the availability of skilled vocational specialists, these areas would not be adequately addressed and as much progress would not have been made.”

—*Dr. Francis Tuttle, quoted in A Case Study of Three States Identified as Having a High-Quality State Vocational Education System, Roy V. Peters, Jr., December 1987*

The Significance of Being Separate

“Having a separate board and separate staff has created visibility for vocational education achievements that would probably not have been noticed if vocational education were just another educational division within a larger, educational administrative unit. Traditional educators have the tendency to deal with academic disciplines and overlook the accomplishments of vocational education, which are not as lofty or theoretical.”

—*Dr. Francis Tuttle, quoted in A Case Study of Three States Identified as Having a High-Quality State Vocational Education System, Roy V. Peters, Jr., December 1987*



The Road Ahead

"It's been a career I feel most fortunate to have had to see a time when we started with practically nothing. The only vocational schools we had when we started here was the residential vocational school in Okmulgee and two technical institutes—post-secondary technical institutes—one here on the campus [of OSU] and one in Oklahoma City. That was it. All the rest of vocational education has grown from that time. So, you know, it's really been a pleasure to see the growth and see the success that that growth has brought to the State of Oklahoma. I personally believe that there's still room for more growth and, while I think we've got to watch what we're doing and we have to be very careful about how we spend our money, but I think that there's still room for growth and to get to all the things that I can see that need to happen. I don't want to see us take on a lot of things that the public schools ought to take care of themselves because once we start that, then, boy, you'll just drown with all that they'll want you to do because they want you to be lean and mean while they have the opportunity to spend all they want to spend. So, I just caution that we need to watch that a little bit."

—*Dr. Francis Tuttle, Oral History of the Oklahoma Department of Vocational and Technical Education, 1996*

Motto

“Our motto is to act, not just react.”

—*Dr. Francis Tuttle, “Vocational and Technical Education
Related to Industry in Oklahoma,” November 22, 1982*